

# *Sacramento, CA*

## **Individualized Marketing Demonstration Program Individual City Report**

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Bellingham, WA  
Individualized Marketing Demonstration Program  
City Report

|   |           |
|---|-----------|
| <b>1.0 INTRODUCTION</b>                                   | <b>1</b>  |
| <b>2.0 SELECTION REASONING</b>                            | <b>1</b>  |
| A. LEVERAGING RESOURCES                                   | 1         |
| B. PARTNERSHIPS & COORDINATION                            | 1         |
| C. INTEGRATION OF PROJECT WITH OVERALL STRATEGIC APPROACH | 2         |
| D. VALUE OF PROJECT CHARACTERISTICS AS NATIONAL MODEL     | 3         |
| E. OTHER CONSIDERATIONS                                   | 3         |
| <b>3.0 PUBLIC TRANSIT SYSTEM DESCRIPTION</b>              | <b>4</b>  |
| <b>4.0 COVERAGE / AVERAGE ANNUAL RIDERSHIP</b>            | <b>4</b>  |
| <b>5.0 TEST AREA</b>                                      | <b>5</b>  |
| A. REASON FOR SELECTION                                   | 5         |
| B. DESCRIPTION, PHYSICAL, RIDERSHIP, HOW SERVED, ETC      | 5         |
| <b>6.0 METHODS</b>  | <b>5</b>  |
| A. HOW IMDP WAS APPLIED                                   | 5         |
| <b>7.0 RESULTS</b>  | <b>7</b>  |
| A. 'BEFORE' SURVEY  | 7         |
| B. AFTER SURVEY   | 9         |
| C. COMPARISON OF BEFORE & AFTER SURVEY RESULTS            | 9         |
| D. INTENDED USE OF RESULTS                                | 12        |
| <b>8.0 CONCLUSION</b>                                     | <b>12</b> |

## **1.0 Introduction**

Sacramento differs from the other three selected cities in that a specific target area was proposed and selected before actual commencement of the Individualized Marketing Demonstration Program (IMDP). With an overall goal of shifting travel behavior in a specific suburb of Sacramento, Rancho Cordova was chosen as the area of focus for the IMDP. With a similar project in the planning process for six months prior to the IMDP request for proposals, Sacramento's question was, "to what degree can soft policies, such as household trip planning and community-based marketing, reduce passenger vehicle trips and increase walking, bicycling and use of transit?" At the announcement of the intended IMDP, Sacramento combined its previously acquired resources to submit a proposal for participation in the program.

Sacramento provides an opportunity to test how Individualized Marketing works to reduce car use and promote environmentally friendly transportation options in a rapidly growing suburb of a highly populated city. The enthusiasm of the local community leaders, and new and previously built partnerships will be essential to long term results.

## **2.0 Selection Reasoning**

Sacramento was selected based on four criteria previously established before project solicitation began. These criteria included:

- a. Leveraging Resources
- b. Partnerships & Coordination
- c. Integration of Project with Overall Strategic Approach
- d. Value of Project Characteristics as National Model

### **a. Leveraging Resources**

This factor focused on the applicant's ability to secure resources beyond those provided by the FTA, and the applicant's commitment to the success of the project through examination of the commitment and resources provided, including in-kind contribution of material, equipment, space, staff time, and other creative contributions.

In response to this criterion, Sacramento Regional Transit (SRT) outlined its intent to perform the IMDP as a collaboration between SRT, Odyssey (a non-profit, state-wide organization dedicated to promoting public transit), SACOG (a Metropolitan Planning Organization), and the city of Rancho Cordova, which will all meet regularly with the project team and contribute in-kind and/or financial resources to the project. SRT has also already secured some seed funding from the U.S. Environmental Protection Agency, in-kind support from the California Air Resources Board, and Odyssey has been supplied with a grant from the U.S. government. SRT also committed \$128,357 of its own funding for the project.

An office was established for the project in the Rancho Cordova Neighborhood Center, which was centrally located in the target area. The office was equipped with computers, a fax line, internet, and six phone lines. A post office box was set up for collection of the surveys and service sheets.

### **b. Partnerships & Coordination**

This factor focused on special consideration given to appropriate partnerships created by the applicant for implementation of the project. Scoring took into account the applicant's ability to clearly explain how the staff would coordinate with the project team, how both would contribute toward the success of the project, and how the results of the project would be utilized to improve the applicant's organization. Scoring also was determined by whether the applicant addressed how the project would coordinate with related activities in the

organization and community, as well as successful partnerships with community organizations in the past.

In response to this criterion, SRT listed a number of agencies and organizations willing to participate in the IMDP, with reasoning for each partnership selection. These agencies and their purposes include:

- The California Air Resources Board (ARB) - review surveys and help trouble shoot any modeling requiring statistical techniques.
- San Diego State University - quantify the increase in walking and biking, and walking and biking to and from transit, and evaluate the benefits of the project from a public health perspective.
- 50 Corridor Transportation Management Association - provide bicycle safety training, assist in developing and distributing educational materials, and provide transit timetables and schedules.
- California State Department of Transportation (Caltrans) - publicize results of the project through Caltrans' website, statewide and district events, and publications; provide meeting space for project team; calculate farebox recovery ratio change from project; and consider funding a follow-up project in the region or in other parts of California, if successful.

SRT formed a project advisory committee, consisting of the following:

- The California Department of Health Services
- California Bicycle Coalition
- California Transit Association
- *WalkSacramento*

SRT was also able to form an agreement with the Department of Exercise and Nutritional Sciences at San Diego State University to evaluate the public health benefits of the Individualized Marketing approach.

### **c. Integration of Project with Overall Strategic Approach**

This factor focused on the degree to which the project would fit into an overall approach to increase ridership in the applicant's location. Greater consideration was given to areas that have demonstrated success in planning and executing other initiatives aimed at increasing ridership, and could show a high level of commitment throughout the organization for the project.

In response to this criterion, SRT outlined its vision to provide a coordinated regional public transportation system that delivers quality and environmentally sensitive transit services that are an indispensable part of the fabric of communities throughout the Sacramento region.

SRT outlined three key organizational values of its strategic plan and how the IMDP related to fulfillment of these goals, including:

- Regional Leadership - SRT's fundamental role in the IMDP supports its goal of providing local, regional and national leadership in innovative marketing programs to increase transit ridership
- Engage a broad spectrum of community partners
- Customer Service - The data and other knowledge gathered during this pilot project will enable RT to better understand and provide for the transit needs of our community.

SRT also emphasized the city of Rancho Cordova's goals to: create a transit-oriented community; capitalize on existing transit infrastructure; promote a community "gem" (the

biking and walking trail along the American River); and promote the image of the city by publishing information on places of interest, as aligning with that of the IMDP.

#### **d. Value of Project Characteristics as National Model**

This factor focused on whether demographic and situational characteristics of the city proved to be of high value as a research demonstration to other locales. Scoring also took into effect the applicant's ability to point out the value of the location as a national or regional model.

In response to this criterion, Sacramento provided many positive factors that contributed to its desirability as a candidate for the project. For example, the target area of Rancho Cordova reflects the ethnic diversity of the state, and of many states within the U.S. The city is easily accessible by highway, close to a large city, and is a growing economic area, all of which can be considered as models for a national application. SRT's selection would also give an opportunity to study the effects of 'sprawl and crawl' on mass transportation use.

#### **e. Other Considerations**

In addition to the four main criteria, other considerations were regarded during the selection process. Some of these included:

- i. Population Size
- ii. Active Fleet Size
- iii. Unlinked Passenger Trips
- iv. Climate Zone
- v. Diversity index

These criteria were scored according to the following chart:

|  |  |  |
|--|--|--|
| <b>Population size:</b><br><i>Very Small</i> Less than 100,000<br><i>Small</i> 101,000 – 250,000<br><i>Medium</i> 251,000 – 500,000<br><i>Large</i> 501,000 – 750,000<br><i>Very Large</i> 750,000 and above | <b>Active Fleet Size:</b><br><i>Small</i> <50 peak vehicles<br><i>Mid</i> 50-100 peak vehicles<br><i>Large</i> 100-500 peak vehicles<br><i>Very Large</i> >500 peak vehicles | <b>Diversity Index (based on % of non-whites):</b><br><i>Very Low</i> Less than 20%<br><i>Low</i> 21 – 40%<br><i>Moderate</i> 41 – 60%<br><i>High</i> 61 – 80%<br><i>Very High</i> 81% and above |
| <b>Unlinked Passenger Trips:</b><br><i>Low</i> Less than 1 million<br><i>Mid</i> 1 million to 4 million<br><i>High</i> 4 million to 30 million<br><i>Very High</i> over 30 million                           | <b>Climate Zone:</b><br><i>Zone 1</i> Very cold<br><i>Zone 2</i> Cold<br><i>Zone 3</i> Moderate<br><i>Zone 4</i> Warm<br><i>Zone 5</i> Very Warm                             |  |

##### *i. Population Size*

Downtown Sacramento offers a medium population of 407,018 people, with Rancho Cordova's population much smaller at 57,000 people. However, the Sacramento region has a population of 1.9 million, spanning throughout downtown, suburbs, and adjacent urban communities.

Rancho Cordova is also considered to be the second major job center rivaling downtown Sacramento, guaranteeing growth in the coming years. As the cost of living rises in many major cities, growth will expand to the suburbs, causing an increase in jobs and housing demands. Because of projected growth and increases, Rancho Cordova is considered valuable as a national model for similar cities, despite its currently small population.

*ii. Active Fleet Size*

Sacramento's active fleet size was a very positive contributing factor to the city's selection, as they have between 100 and 500 peak vehicles, which is considered a large fleet size.

*iii. Unlinked Passenger Trips*

Sacramento's unlinked passenger trips were also a determining factor in city selection, as they ranged between 4 million and 30 million, considered a high ridership statistic.

*iv. Climate Zone*

Sacramento's climate also served as a substantial national model, due to their moderate weather.

*v. Diversity Index*

Lastly, Sacramento's diversity index was high with 61 – 80% of non-whites in the area. This was a desirable factor in determining Sacramento as a candidate for city selection, as it would serve as a good representative of mass transit in a highly diverse city.

### **3.0 Public Transit System Description**

Sacramento Regional Transit has a service area population of 418 square miles. Included in its types of service are bus, light rail, paratransit, neighborhood circulation shuttles, and central city circulating shuttles. There are 267 active buses, with 221 of those as peak vehicles, and 58 active light rail vehicles, with 44 operating during peak hours. SRT operates approximately 80 bus routes and 27 miles of light rail. Buses and light rail run 365 days a year. Of SRT's buses, 220 are powered by compressed natural gas (CNG) and 20 are diesel. Buses operate daily from 5:00am to 11:30pm, every 15 to 60 minutes, depending on the route. Light rail trains operate from 4:30am to 1:00am daily, with service every 15 minutes during the day, and every 30 minutes in the evening.

SRT employs a work force of 1,100 people, with 80% dedicated to operations and maintenance of bus and light rail systems. SRT is governed by a seven member board of directors comprised of members of the Sacramento City Council and the Sacramento County Board of Supervisors.

### **4.0 Coverage / Average Annual Ridership**

During the 1990s, RT experienced solid ridership growth, but that has declined in recent years. Total annual ridership has hovered around 27.5 million since 2000. Recent figures show a dramatic change, with total ridership up 6 percent since July 2003. Some of that gain is likely due to a new light rail line that opened in September of 2003. However, bus ridership is holding its own with a 3 percent gain during the same period. In addition, the Sunrise Boulevard light rail extension will open in June 2004.

On average, unfilled capacity on the transit lines is more than half, with many of the seats available during non-peak hours, when 80% of travel trips are taken.

## 5.0 Test Area

Within the city of Sacramento, a certain area was designated as a “test area.” Houses within the test received marketing intervention, and a control group was established (based on random selection) for comparison purposes.

### a. Reason for Selection

There were many reasons for selecting the particular test area within Sacramento, which included, but are not limited to, the following:

- The suburban community was populated with younger and racially diverse individuals
- The six bus routes and one light rail line operate at less than 50% capacity
- A new light rail service was slated to open in 2004
- The area contained viable, efficient, and safe walking, biking, and mass transit to and from major destination points
- There was a large concentration of individuals who were willing to consider driving less often and switching one or two trips per week to alternative modes
- Schools were located near transit routes and school age children showed low levels of physical activity
- The city’s demographics resembled the state as a whole

### b. Description, physical, ridership, how served, etc

The target area selected is located just outside downtown Sacramento in an area called Rancho Cordova. Rancho Cordova is a fast growing, middle class, inner ring suburb that is served by one light rail station, six bus routes, a sufficient network of bicycle facilities, (including lanes and routes), and trails and sidewalks suitable for short trips under five miles.

The city has a population of about 57,000; its ethnic diversity reflects that of the state, and it is rapidly growing with high demand for jobs and services. There are many older established neighborhoods, as well as newly developed neighborhoods in the city. Rancho Cordova is a newly incorporated city that is dedicated to serve a diverse, growing community through innovative, efficient customer-oriented city services. It emphasizes civic involvement and livable neighborhoods.

Rancho Cordova residents have a median age of 32 years, and the average household size contains 2.7 persons. The racial distribution is rather diverse with 66.6% white, 11.3% African American, 12.9% Hispanic, 0.9% Native American, 0.5% Pacific Islander, and 8.2% Asian residents.

The target area included the entire city of Rancho Cordova. Random households were selected for participation in the project, in a similar manner as to selection of the control group.

## 6.0 Methods

### a. How IMDP was applied

The Individualized Marketing Demonstration Program is marked by three distinct phases:

1. ‘Before’ Survey
  - a. Segmentation Phase
    - i. Group I
    - ii. Group R

- iii. Group N
- 2. Individualized Marketing Intervention
  - a. Motivation and Information Phases
  - b. Convincing Phase
- 3. After Survey

These three phases follow a process that has been pre-planned and implemented previously in other areas. Each lasts approximately six weeks.

*i. 'Before' Survey*

The Sacramento 'Before' survey was conducted using a mail-back survey technique utilizing a one-day trip diary for all household members. The goal of the 'Before' survey was to gather information about the target and control areas, including residents' current travel patterns and habits, their interest in public transportation, walking, and cycling modes, and their willingness to learn more about environmentally friendly modes of transportation in their community. The first nominated travel day for the Sacramento 'Before' survey was on November 15, 2004. Announcement letters were sent in advance to inform participants about the purpose of the travel survey. A main mailing letter and an information pamphlet accompanied the mail-back survey diaries, which were received by respondents on their nominated travel days. A series of telephone calls and reminder letters were then used to motivate the respondents to return their travel surveys.

*a. Segmentation Phase*

Segmenting households using the 'Before' survey data made it possible to identify households that were willing and able to change their mobility patterns, and those who already use one or more environmentally friendly modes. Households that were not interested and had no potential for change received no further direct contact, but were sent an AAA brochure on how to use their car more efficiently.

Nine hundred persons were randomly selected from the target group. These 900 were then classified into three main groups:

- 1. Group 'I' – Participants willing and able to change their mobility patterns, and those interested in receiving more information about the how, when, and why of public transportation and alternate transportation methods.
- 2. Group 'R' – Participants already using one or more environmentally friendly transportation mode. This group was then separated into two sub-groups:
  - a. 'R with' meaning participants already using environmentally friendly transportation mode(s) but interested in receiving information.
  - b. 'R without' meaning those already using environmentally friendly mode(s) but not interested in receiving further information
- 3. Group 'N' – Households not interested in changing their transportation habits, and those determined to have no potential for change.

*ii. Individualized Marketing*

*a. Motivation and Information Phases*



The motivation and information phases focused attention on all households in the 'I' (interested) group and in the 'R with' group (regular users of one or more environmentally friendly modes with information needs). Households in the 'I' and 'R with' groupings were mailed a Service Sheet that contained a comprehensive list of public transportation, bicycling, and walking materials that could be ordered. The 'R without' group respondents received a gift item for already using an environmentally friendly mode, along with additional information materials. This design methodology was utilized because it was observed that regular users of alternative modes without information requests could benefit from new and updated materials.

*b. Convincing Phase*

In the convincing phase, further services, or 'home visits' were offered to households as an opportunity to learn more about a particular alternative mode via a face-to-face conversation with a qualified representative for each mode, (bus driver, cycling and/or walking professional). The convincing phase was instrumental in motivating and encouraging households to try out an alternative mode they were interested in. Bus passes were distributed during public transportation home visits, thereby allowing household members to 'test' the system.

*iii. After Survey*

The Sacramento 'After' survey was conducted using a self-administered mail back survey for households and individuals. The survey forms were identical to those used in the 'Before' survey. Announcement letters, reminder letters, and phone calls were also used to motivate residents to fill out and return their travel surveys. The first nominated travel day for the 'After' survey was on July 18, 2005.

## 7.0 Results

**a. 'Before' Survey**

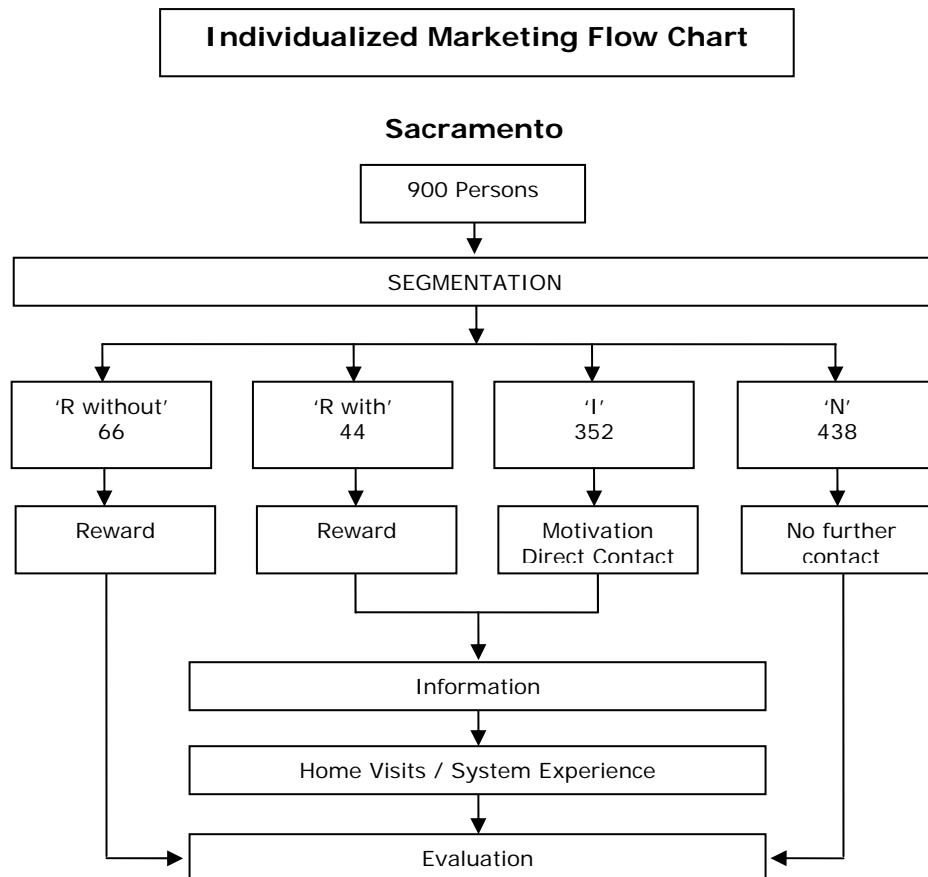
As shown in the table below, of the 2,600 surveys mailed, 380 were returned by the post office without opening for varying reasons, such as the residents had moved or the address no longer matched the household name. That reduced the sample size to 2,200 persons. Of those, 1,288 completed and returned the survey. This represents a 58% response to the 'Before' survey.

***'Before' Survey Response***

|  |       |
|--|-------|
| Gross Number of Surveys Mailed                                 | 2,600 |
| Surveys Returned To Sender Due to Address Change (Sample Loss) | 380   |
| Adjusted Gross Sample Size                                     | 2,200 |
| Surveys Returned Complete                                      | 1,288 |
| Response Rate  | 58 %  |

As shown in the figure below, results from the segmentation phase of the 'Before' survey indicated that there were 352 persons (39%) in the 'Interested' or 'I' group, 110 (12%) persons in the 'R' group, and 438 (49%) persons who were 'Not Interested' or 'N' group.

**Figure 1: IMDP flow chart**



*i. Deliveries*

A total of 220 tote bags with information were delivered personally to Rancho Cordova residents using bicycles and trailers, all within four days of receiving their service sheets.

*ii. Home Visits*

A total of 15 home visits were conducted during the convincing phase. These home visits were approximately 67 minutes long and were perceived as "positive" by each household. They included:

- Six households received public transportation home visits. The households received a free one month transit pass to encourage participants to "test" the system.
- Cycling home visits were administered to six households. Each household received personalized advice on bicycling issues and concerns, in addition to information materials.

- Three walking home visits were conducted by walking advocates from a local walking organization. Information materials were also distributed to households during these visits.

## **b. After Survey**

The response rate to the Sacramento 'After' survey was 68%, with 1,524 persons (net) returning their travel survey, as can be seen in the table below.

### ***'After' Survey Response***

|  |        |
|--|--------|
| Gross Number of Surveys Mailed                                 | 2,500  |
| Surveys Returned To Sender Due to Address Change (Sample Loss) | 257    |
| Adjusted Gross Sample Size                                     | 2,243  |
| Surveys Returned Complete                                      | 1,524* |
| Response Rate  | 68%    |

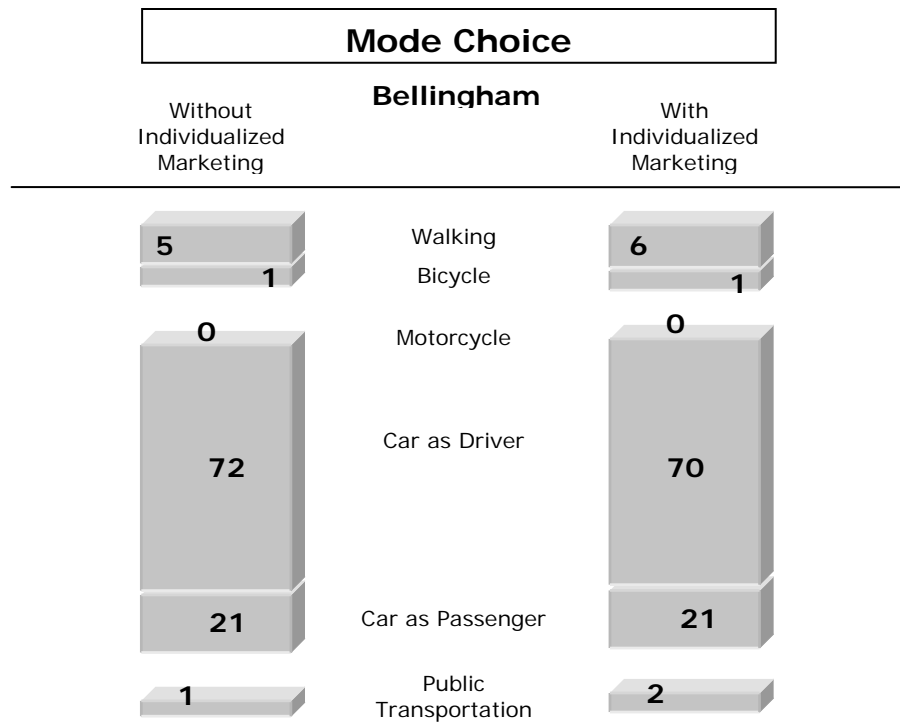
*\* Total survey returns are broken down into two sections – the target group returns totalled 744 and the control group returns totalled 780 \**

## **c. Comparison of Before & After Survey Results**

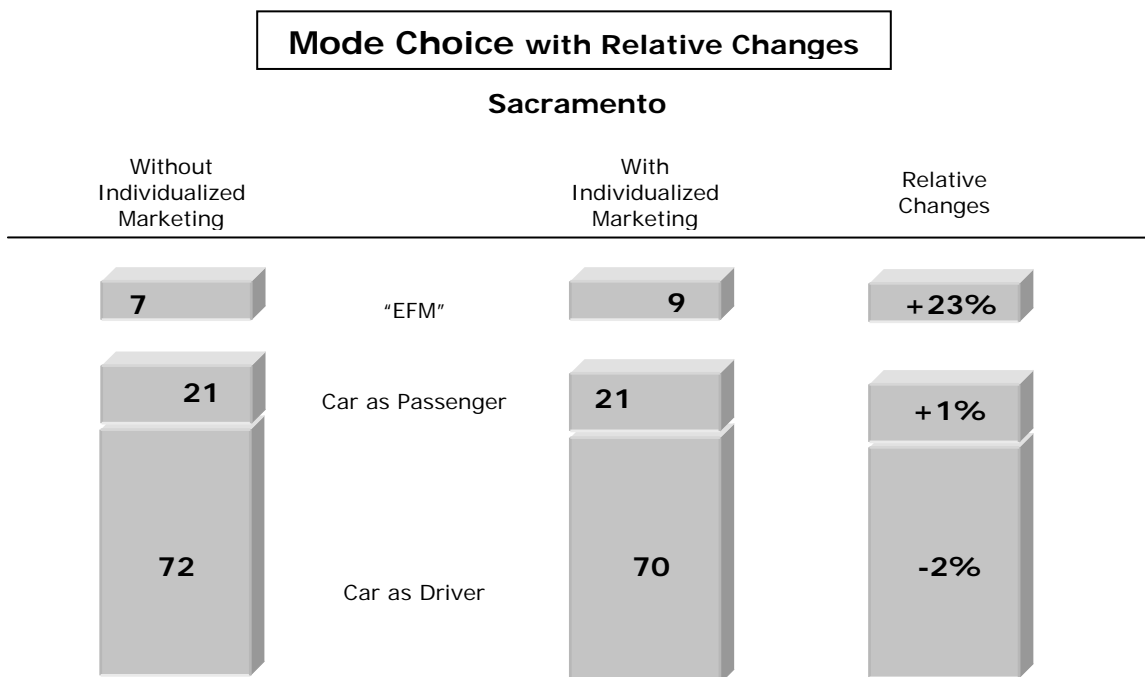
An important component of the Sacramento Individualized Marketing Demonstration project is the extensive evaluation of results. A pilot project aims to assess the potential of different techniques for application on a larger scale in Sacramento; therefore, a detailed and robust evaluation of the effects on travel behavior is of critical importance. The actual changes in mode choice are the key indicator of a successful campaign in Sacramento. To separate the effect of the IMDP from other influences, a control group was applied to the survey design. The changes due to the IMDP are calculated by comparing the travel patterns in the target group with those in the control group. This comparison between target and control groups consequently demonstrates the effect of Individualized Marketing.

The survey results indicate that there were significant changes in the use of most main travel modes as a result of the Sacramento IMDP. Car (as driver) usage decreased by two percentage points. The walking and public transportation modes each increased by one percentage point. The use of bicycling and car (as passenger) trips rose slightly, but these small changes can only be seen on the detailed level of trips per person, per year.

The figure below indicates that before the IMDP, Sacramento residents were walking (without using another mode) for 5% of their daily trips and bicycling for 1% of their daily trips. The car represents the mode most frequently used, with 72% car (as driver) and 21% car (as passenger) trips. Public transportation accounts for only 1% of all trips. Environmentally friendly modes (EFM) increases following the marketing intervention. The walking and public transportation modes increased by one percentage point each. The bicycling and car (as passenger) modes increased slightly, but these changes were not statistically significant. Car (as driver) use decreased by three percentage points following the marketing campaign.



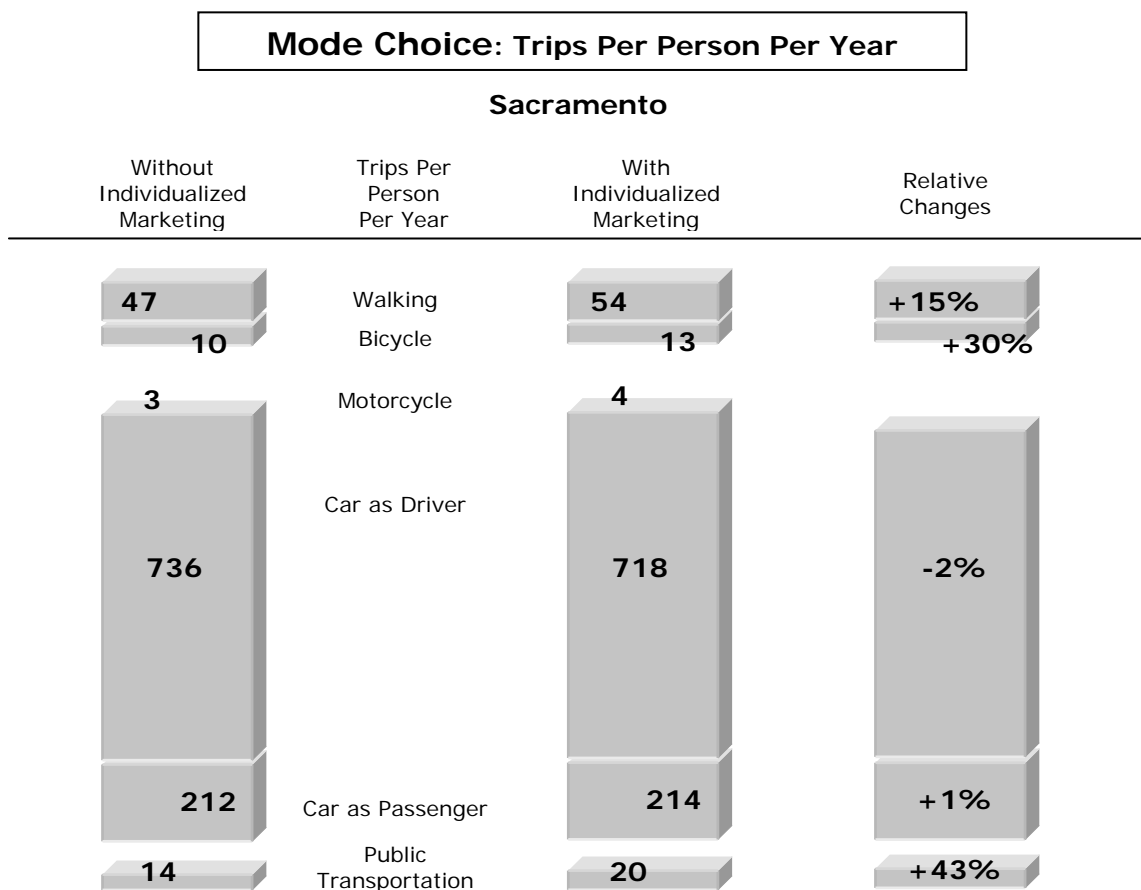
The figure below shows the changes in mode choice measured by the 'After' survey in terms of trips per person per year. There was an 2% reduction in car (as driver) use with corresponding increases (+23%) in environmentally friendly modes (EFM) and for the car as passenger mode (+1%).



Experience shows that in countries with such low levels of public transportation use, it is more effective to promote walking, bicycling, *and* public transportation. The results for the public transportation mode will be better than simply promoting public transportation alone, and this was the rationale for promoting all environmentally friendly modes in the FTA Individualized Marketing Demonstration Project in Sacramento.

The figure below demonstrates everyday mobility in Sacramento, which excludes long distance trips and holiday travel. For an average of the year (341 days), the majority of trips were made by car, with 736 by car (as driver) and 212 by car (as passenger). There were 71 trips undertaken per person per year by environmentally friendly modes: 47 by foot; 10 by bicycle; and 14 using public transportation.

With the Individualized Marketing Intervention, car (as driver) trips decreased by 2%, while the car (as passenger) mode increased by 1%. Car (as driver) trips were replaced by environmentally friendly modes – walking increased by 15%, bicycling by 30%, and public transportation by 43%.



The table below compares everyday mobility car mileage with and without Individualized Marketing. The target group, which contained 900 persons, had a total of 780 cars (both before and after). A successful IMDP campaign resulted in a 4% reduction in vehicle miles traveled by these cars. This equates to 160,000 miles reduced per year.

### ***Car Mileage***

| <b>Without Individualized Marketing</b> |   | <b>With Individualized Marketing</b> |
|---|---|--------------------------------------|
| 780                                     | (Private) Cars in Total                   | 780                                  |
| 17                                      | Miles Per Car Per Day (everyday mobility) | 16                                   |
| 4.44 million                            | Total Miles Per Year (341 days)           | 4.28 million                         |
|   | Reduction (mi per year)                   | -0.16 million                        |
|   | Relative Reduction                        | -4%                                  |

#### **d. Intended Use of Results**

Sacramento Regional Transit (SRT) plans to use the IMDP results for dissemination to the public. All of the project team partners involved in Sacramento's IMDP participate in broad networks through which the results of the project will be dispersed. All resulting measures and methods will be made public and available to others. The study will be disseminated using three methods: 1) presentation at scientific meetings; 2) publication in peer-reviewed journals; 3) presentation and discussion with community groups, policy makers and industry leaders.

## **8.0 Conclusion**

The Individualized Marketing Demonstration Program in Sacramento was successful in many ways. The Sacramento project team committed necessary resources to the project to ensure that the marketing intervention had a direct impact on residents in the target area. The results indicate that travel behavior changes were accomplished.

Following marketing efforts, car use decreased by two percentage points, whereas environmentally friendly modes increased by 23 percent. Based on these encouraging results, it is anticipated that a large scale project conducted in Sacramento would substantially reduce car use and increase the mode share of walking, cycling, and public transportation trips.

The success of the Sacramento IMDP shows that Individualized Marketing can be effectively implemented in younger and more racially diverse suburban neighborhoods. It is also anticipated that after comparing Sacramento's results with those of the other three demonstration cities, there will be a good indication of how Individualized Marketing works in different types of neighborhoods located in both large and small cities across the United States.